June 26, 2020

Protocol Title: Exploring Nitrous Oxide Effects for Posttraumatic Stress Disorder (PTSD)

NCT03375294

Study Protocol/Method

Three veteran outpatients (ages 31, 43, and 46 years) who met PTSD criteria of at least moderate symptom severity (Clinician-Administered PTSD Scale for DSM-5 [CAPS-5] score ≥ 40) were recruited from the Veterans Affairs Palo Alto Health Care System between April 2018 and July 2019. Individuals were excluded if they had comorbid psychiatric or medical conditions that increased the risk of participation. All participants completed a single 1-hour subanesthetic inhalation of 50% nitrous oxide and 50% oxygen administered by an anesthesiologist via face mask and standard semi-closed anesthetic circuit with a total gas flow rate of 4–8 L/min. A trained independent evaluator rated PTSD symptoms using CAPS-5 at baseline and 1 week after drug administration.

Statistical Analysis Plan

Response was defined a priori as a CAPS-5 score reduction of 12 points at 7 days.